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20th September, 1960. COCOM Document No. 4140

COORDINATING COMMITTEE

RECORD OF DISCUSSION

ON

PROPOSED BELGIAN EXPORT OF A RADIO LINK TO POLAND

8th September, 1960

Present: Belgium(Luxembourg), France, Germany, Italy, Japan, Netherlands, Norway, Turkey, United Kingdom, United States.

References: COCOM Documents 3715.20/3, 4047 and 4117.

1. The BELGIAN Delegate drew the Committee's attention to his Delegation's proposal, submitted during the summer recess, to export to Poland a radio link valued at approximately $ 100,000, and covered by Item 1520. He explained that the order would be cancelled and replaced with a Swedish firm if no reply were given by the 19th September. He asked delegations for their views and undertook to reply to any questions they might wish to raise.

2. The UNITED STATES Delegate stated that, while he had no specific questions on this case, he had already suggested that the Belgian Delegation consult COCOM Documents 4047 and 3715.20/3 which illustrated the kind of additional information which would be of interest to the United States Delegation. The Delegate informed the Committee that a United States firm had in July of this year applied to the United States Treasury for a licence permitting its foreign subsidiary to ship to Poland equipment probably identical to that involved in the current Belgian case. The application had been refused since it was believed that the equipment proposed for export and to be made available on a permanent basis greatly exceeded the requirements of the stated end-use. On the basis of the foregoing and of the information so far provided by the Belgian Delegation, it seemed unlikely that the United States authorities could concur in this proposal, but they were prepared to study any additional information supplied.

3. The FRENCH Delegate stated that an important French firm had also been approached as to the supply of equipment similar to that described in the Belgian Memorandum. The French authorities had been concerned by the number of telephone channels required, i.e. 60, and had not encouraged the firm concerned to continue negotiations. The Delegate had nevertheless been instructed to state that in view of the low power i.e. 5 watts, and the short range, i.e. 50 kms., involved, his Delegation would not raise objection to the Belgian request.

4. The ITALIAN Delegate stated that, for reasons similar to those invoked by the French Delegate, and in view of the country of destination, his authorities had no objection to the Belgian proposal.

5. The GERMAN Delegate stated that, before giving final views, he would like to put three questions to his Belgian colleague:

1) what number of simultaneous telephone communications could be obtained with the 60 channels indicated ?

2) what was the type of the installation ?

CONFIDENTIAL

3) how many modulating and radio bays were there in this link ?

6. The BELGIAN Delegate, in reply to the above questions from the German Delegate, stated that the capacity of the equipment required was 60 two-way channels, which would allow of 60 telephone communications at the same time in both directions. Referring to the concern expressed as to the number of channels required, the Delegate did not think that it could be considered excessive. He explained that Zakopane was both an important winter sports centre and a busy summer resort. It was situated some 70 kilometres from Cracow, the town to which it was to be linked. Moreover this link would be connected with the national Polish cable circuit and through that circuit with countries abroad. It might thus be said that it would serve to connect up with Free World communications systems. On the second German question, the Delegate explained that the equipment was of the BFM 120/2,000 type, frequency modulated, with a nominal capacity of 120 channels although only 60 channels had been required. It had a frequency range of between 1,700 and 2,100 Mc/s. The Belgian firm had also been asked to supply classic carrier equipment for 60 channels. As to the structure of the link, it comprised two terminal receiving and transmitting stations. Moreover, in view of the mountainous country between Zakopane and Cracow, a relay station would have to be installed at a certain altitude where it would be visible from both towns. Therefore in addition to the two transmitting and receiving terminal stations there would be a double transmitting and receiving intermediate station, which would be a through repeater. There would also be stand-by equipment in case of a breakdown. At both terminal stations there would be 60 channel equipment for modulation. In conclusion, the Delegate took note of his United States colleague's suggestion in paragraph 2 above, and undertook to provide the detailed technical information requested. This data is set out in the Annex to this document.

7. The GERMAN Delegate stated that, in view of the special reasons invoked and of the urgency of the matter, his authorities would not raise objection to the Belgian request.

8. The UNITED KINGDOM Delegate stated that if a United Kingdom exporter had applied for a licence his authorities would probably have refused it without even bringing the matter before the Committee. Nevertheless, if the rest of the Committee agreed that the equipment could be exported, the United Kingdom authorities would be prepared to accept the Committee's decision.

9. The NETHERLANDS Delegate stated that his authorities had asked for further data, similar to that requested by the German Delegation. After study of the information received, they would not raise objection to the proposed export.

10. The UNITED STATES Delegate undertook to transmit the additional information supplied to his Government immediately, in order to have views within the short time remaining to the Belgian authorities. The COMMITTEE agreed to rediscuss the matter on the 19th September.

TECHNICAL DATA

I - RADIO EQUIPMENT

Modulation	:	FM
Frequency range	:	1,700 - 2,100 Mc/s
Maximum overall deviation	:	± 1.5 Mc/s peak
System R.F. bandwidth	:	6 Mc/s at 3 db

Transmitter

Modulator frequency	:	70 Mc/s centre frequency
Output power	:	5 watts nominal to aerial feeder

Receiver

Intermediate frequency	:	70 Mc/s centre frequency
I.F. bandwidth	:	6 Mc/s, 3 db off. Attenuation greater than 60 db for bandwidth of ± 14 Mc/s
Receiver noise figure	:	15 db
Sensitivity (for 20 db noise quieting)	:	20 microvolt
I.F. gain	:	87 db maximum
Traffic channels capacity 60	:	312-552 Kc/s
Frequency response	:	± 2 db total variation for 60-552 Kc/s
Linearity of response	:	Within ± 1 db for any input level between -40 and -52 dbm
Radiators	:	Dipoles
Reflectors	:	fixed 10 ft paraboloid
Type of tubes	:	The power stages use lighthouse tubes type 2 C 39 A. This type of tube has been currently used for several years

II - CHANNELLING EQUIPMENT

Conventional Carrier Current Telephone System, with 60 4 Kc/s channels, in the band 312-552 Kc/s.

The equipment is fully transistorised, with current type germanium transistors.